

## PATENT SPECIFICATION

739,405



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## COMPLETE SPECIFICATION

## Cap Nut

We, ALLMANNA SVENSKA ELEKTRISKA AKTIEBOLAGET, a Swedish Company, of Västerås, Sweden, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

Hitherto known cap nuts have been manufactured from bar material by turning and thread-cutting. Apart from the fact that much material is wasted by such a method of manufacture, the time of manufacture is also long, especially due to the fact that each nut has to be screw-threaded individually. The present invention relates to a cap nut which may be manufactured considerably more cheaply than hitherto, and the invention is characterised in that the nut is a common open nut having a cap made from sheet metal secured at one end by projection-welding. Since normal cheap methods may be used in the manufacture of the nuts and since the caps can be fabricated cheaply by pressing or drawing, the manufacturing costs of the cap nuts according to the invention are much lower. In addition, the quantity of material required for the cap is considerably less than in the case of cap nuts turned from a solid workpiece.

In the accompanying drawing Figure 1 shows a cap nut according to the invention, Figures 2 and 3 show two steps in the manufacture of one form of the cap, and Figure 4 shows a modified form of the cap. The cap may be manufactured by punching circular discs from sheet metal, which are thereafter pressed or stamped into the required convex or hemi-spherical shape. At the same time the cap 1 is provided with a flange 2 projecting laterally, i.e. at a right angle to the cap axis the outer edge of which flange may be bent as shown in Figure 3 in a separate manufacturing operation, so that an axially extending edge 3 is obtained. The cap is then

projection-welded on one end of a nut 4, the edge 3 causing a concentration of current at the contact surface between the cap and the nut 4, which facilitates the welding process.

In the embodiment of the cap shown in Figure 4, the required concentration of current is obtained by providing the flange 2 with a downwardly directed ridge 5.

In the manufacture of cap nuts according to the invention, a considerable amount of both material and working time is saved. It is especially advantageous that, in manufacturing cap nuts according to the invention, common nuts manufactured by mass production may be used. The welding of the caps gives a joint which does not require finishing to give the nut a neat appearance.

What we claim is:—

1. A cap nut consisting of a common nut having a sheet metal cap fixed on one end by projection-welding.

2. A cap nut as claimed in claim 1, wherein the cap is a sheet metal punching formed into convex shape by pressing.

3. A cap nut as claimed in claim 1 or 2, wherein prior to fixing the cap is provided at the edge with a flange projecting substantially at a right angle to its axis, the outer edge of said flange being bent downwardly so that it is substantially parallel with the axis of the cap.

4. A cap nut as claimed in claim 1 or 2, wherein prior to fixing the cap is provided at the edge with a flange projecting substantially perpendicular to its axis, said flange being provided with a downwardly directed ridge.

5. A cap nut substantially as herein described with reference to Figures 1 to 3 or Figures 1 and 4 of the accompanying drawing.

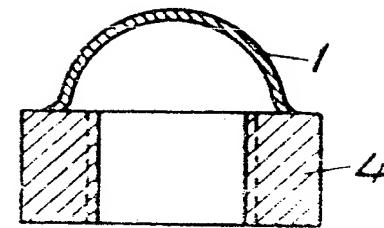
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739,405 COMPLETE SPECIFICATION

1 SHEET

*This drawing is a reproduction of  
the Original on a reduced scale.*

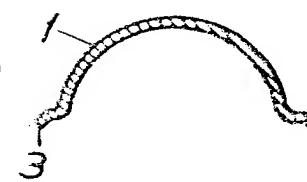
*Fig.1*



*Fig.2*



*Fig.3*



*Fig.4*

